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AFI PLAN RASG-AFI AIG Project

AIG WORKSHOP -- Doc 9756, Part I

Cotonou, Benin

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Guidance material

Manual of Aircraft Accident and Incident Investigation (Doc 9756)

- Part I - Organization and Planning (2018)
- Part II - Procedures and Checklists (2012)
- Part III - Investigation (2011)
- Part IV - Reporting (2nd ed, 2014)



Doc 9756, Part I -- General

Purpose of manual:

- to encourage uniform application of SARPs; and
- Provide information and guidance to States on procedures, practices and techniques for investigation

Objective of investigation:

- Prevention
- Not apportion blame



Doc 9756, Part I -- Definitions

Specific to Manual:

- **Occurrence** - Any accident or incident associated with the operation of an aircraft.
- **Major accident investigation** - An investigation into an accident involving a large aircraft and usually involving fatalities.
- **Smaller investigation** - An investigation into an incident involving any aircraft or into an accident involving a small aircraft.



Primary legislation and structure

- Institute investigation into accident or incident by Art 26, only by appropriate legislation --- establishment of AIA
- Usually investigation by official related to safety oversight – Annex 13 amended to require independent AIA
- An13, 5.4 require independence in conduct of investigation and unrestricted authority
- An13, 5.4.1 – investigations according to Annex 13 shall be separate from judicial or administrative proceedings
- AIA be established and legislatively, organizationally and operationally independent - Doc 9962 model act and regs



Primary legislation and structure

- AIA must be strictly objective and totally impartial and be perceived to be so.
- AIA have legislation to withstand political or other interference or pressure – government or industry
- Independent statutory body or AIA separate from CAA. Usually reporting directly to congress, parliament or ministerial level
- When States resources are limited, ICAO encourages RAIO agreements -- refer Doc 9946



Primary legislation and structure

- When delegate all investigations, still establish AIA -- could have basic staff component.
- Even if delegating all, investigation needs to be instituted as per An13, 5.1 and evidence protected and maintained under safe custody.
- If undertake concurrent functions (limited resources) – no organizational and/or operational connection with other entities that could interfere with conduct and objectivity of investigation.



Primary legislation and structure

- In some States historical examples of undue influence and conflicts of interest.
- Some States connection between AIA and ministry of CAA -- Not ideal and functional independence of AIA need to be demonstrated – head of AIA has legislative and regulatory authority to conduct investigations and publish findings and Final Report without influence.
- USOAP findings identified many States -- AIA investigation could identify deficiencies that would compromise effective leadership of own organization.



Primary legislation and structure

- In some States head of AIA appointed by transport minister or director general – conflict of interest.
- Key premise for functional independence of AIA is that it does not seek nor take instructions from other authorities when investigating.
- Differences file - many States do not have the legislative and organizational structure to ensure functional independence - also separation between investigations and judicial or administrative proceedings.

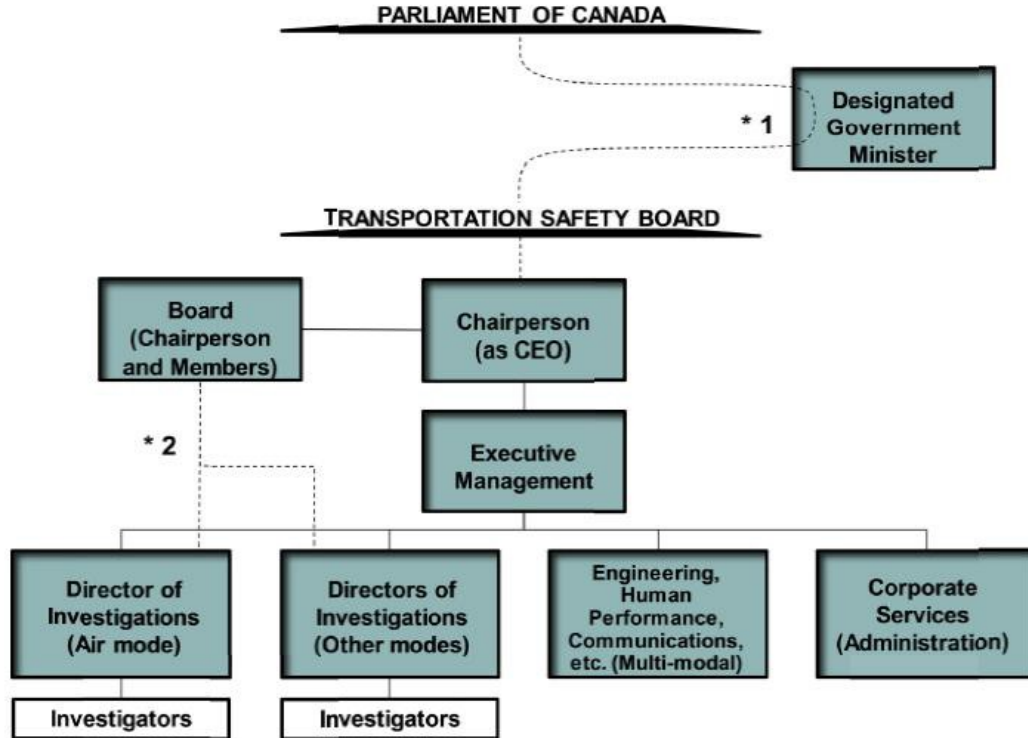


Primary legislation and structure

- In some States with no AIA – unacceptable procedure of appointing ad hoc committee to conduct investigation:
 - many cases minister responsible for CAA appoint ad hoc committee;
 - investigators seconded to ad hoc committee from CAA.

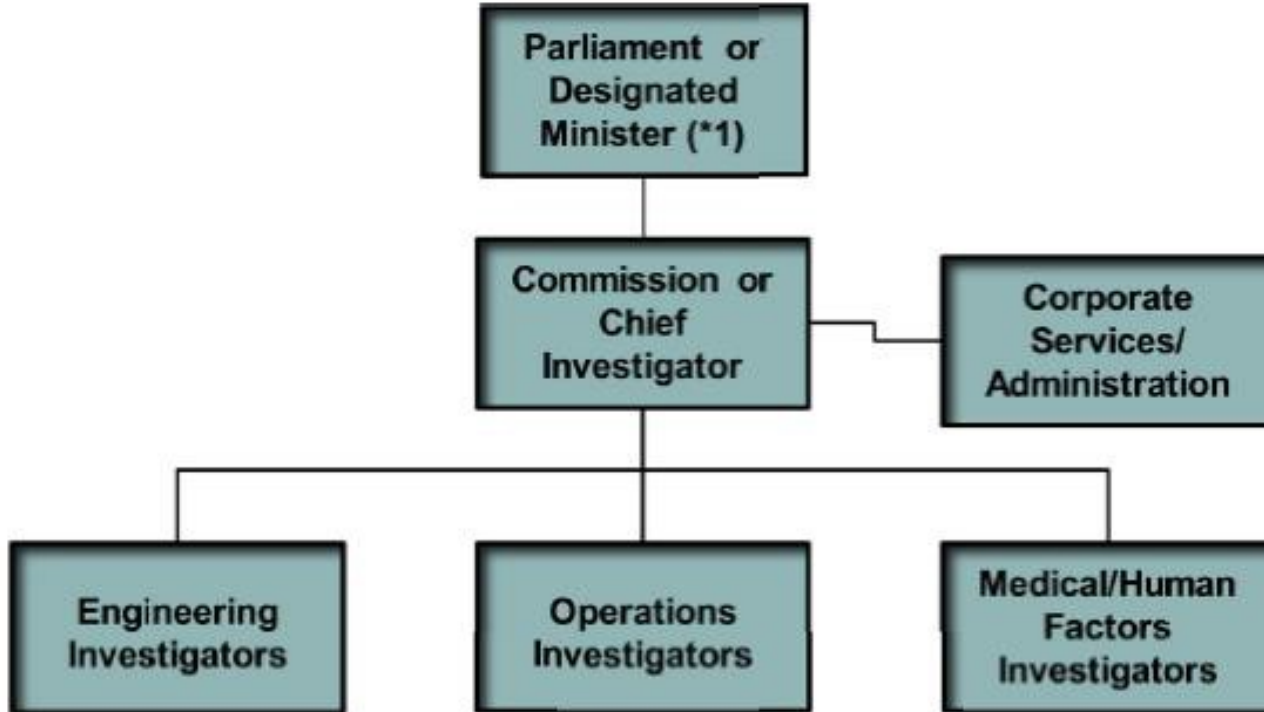


Independent AIA structure





Independent AIA structure





Structures for investigation - low aviation activity

Accident investigation commission to be composed of members seconded from the civil aviation authority. It is essential that such a commission report directly to a ministerial level of government so that the findings and safety recommendations of the investigation are not diluted during passage through regular administrative channels.

* This is not an ideal arrangement.



Primary legislation and structure

- In summary – considered functionally independent while organizationally connected to ministry. Criteria:
 - functional independence:** Demonstrate no real or perceived examples of influence in investigation. Ministry must have no organizational means to influence the conduct of the investigation or judgements on investigative source material;
 - autonomous investigation:** Demonstrate that AIA during conduct of investigation, neither seeks nor take instructions and have authority over conduct of investigations;



Primary legislation and structure

- **unrestricted authority to publish info:** AIA can demonstrate to publish interim statements or reports, findings, safety recommendations and Final Report by itself;
- **independent funding and staffing:** Demonstrate that funding and staffing of AIA cannot be influenced by ministry or other organizations. Also retribution of seconded personnel when return to regular duties; and
- **critical elements embedded in legislation:** Criteria above need to be outlined in legislation and apparent in the operation of the AIA to be considered independent.



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Primary legislation and structure

Best means to achieve functionally independence is criteria to be outlined in legislation and apparent in operation of the AIA



Specific Operating Regulations

- Model operating regulations in *Manual on Accident and Incident Investigation Policies and Procedures* (Doc 9962)
- Ops Regs should address national requirements emanating from legislation -- provide for standardized investigation processes in-line with Annex 13.
- Should not be verbatim adopted in State, but will take format of State preference.
- Regs are promulgated and published by Presidential Decree or similar governmental action. Other by AIA after appropriate approval within government.



Specific Operating Regulations

- State conducting the investigation to appoint IIC -- Responsible for organize, conduct and control of investigation.
- IIC preferred to be from AIA – or functions of IIC could be assigned to a commission or other body.
- Some States accident investigation commission composed of seconded members from CAA --- Commission to report to ministerial level in order that findings and safety recomms. are not diluted by admin. channels.



Legislation regarding the conduct of investigations

- Appropriate legislation that defines rights and responsibilities of AIA.
- AIA access to wreckage and documents.
- Other parallel investigations of judicial, regulatory, labour, occupational health and safety, environment protection, administrative and/or disciplinary inquiries.
- Investigation processes should not be constrained and the objective for investigating not lost.



Legislation regarding the conduct of investigations

- Legislation should protect certain documents.
- Documents listed in An13, 5.12 to be protected unless the competent authority designated by the State conducting the investigation determines that their disclosure or use outweighs the likely adverse domestic and international impact such action may have on that or any future investigations.
- Records only in Final Report is pertinent to analysis.



Funding

- AIA access to sufficient funds to investigate occurrences that fall within their area of responsibility.
- Supplemental funds for major investigation.
- Funding for AIA not influenced nor determined by minister responsible for CAA.
- Funding clearly laid out by legislative and regulatory provisions.



Personnel

- Accident investigation specialized task – need qualified investigators --- training in investigative techniques.
- Experience by engaging in many investigations -- at least one experienced investigator per investigation.
- Investigators have practical background in aviation
- Also personal attributes – integrity, impartiality, perseverance, tact with people and management skills.



Personnel

- Statutory powers which include authority over accident site, possession of evidence, right to test anything seized and the right to obtain documentation.
- Should relate well to people in any situation.



Equipment

Preparedness related to investigation field kit and personal effects.

Advanced considerations:

- Inoculations
- Passport requirements and travel facilities
- Bio-hazard protection --- inoculations and vaccinations and personal protective equipment (Cir 315).



Equipment

- Clothing for conditions.
- Adequate supplies (food etc) and equipment to match terrain challenges --- guides for wilderness.
- Investigation toolkit contain enough equipment for investigation (field kit list in attachment).



Investigation authority readiness

- Besides basics also documented policies, plans, procedures and checklists. Assess internal competencies and plan for when major investigation.
- MOUs with AIAs from States who fly into State.
- MOUs with other State departments in their own State.
- Appendices 2, 3 and 4 provides guidance to such MOUs.
- Working arrangements when civil and State aircraft involved in an accident.



- Working arrangements with first responders (police, fire fighters, Search and Rescue).

Checklist on assistance

- States may use checklist in Appendix 8 to determine their readiness.



CHECKLIST ON ASSISTANCE TO INVESTIGATIONS

INVESTIGATION AUTHORITY READINESS REQUIREMENTS

1. Is there State legislation that establishes an independent accident investigation authority responsible for the conduct of safety investigations?
 - If **not**, the State should establish an independent accident investigation authority that is separate from the civil aviation authority or legal authority; that has rights, responsibilities, suitable statutory powers to conduct the investigation; and that has the required financial, human and technical resources. As an alternative, the State could establish or join an existing regional accident investigation organization.
2. Is there State legislation that specifies the powers of the accident investigation authority and how investigations are conducted?
 - If **not**, the State should direct that the investigation be conducted in accordance with Annex 13 and the *Manual of Aircraft Accident and Independent Investigation* (Doc 9756).



Delegation of investigations

- Delegating investigations as per Annex 13, Chapter 5 --- three possibilities.
- Factors for delegating - more practical for other State or lack of resources.
- Formal delegation agreement or at discretion of parties if partial delegation.
- Full delegation to State or RAIO -- Investigating State would be responsible for investigating, Final Report and ADREP



Delegation of investigations

- *Instituting* the investigation or *conducting* the investigation
- Protocol for the investigation and a delegation agreement with the State delegated to or the RIAO. Appendix 9 to Chapter 2 contain example of delegation agreement.
- Depending scope of delegation following headings:
Introduction, terminology, objective, conduct of investigation, participation, scope and reporting responsibilities, miscellaneous, financial considerations, coordination, dispute, entry into force termination and reactivation, notification of agreement to ICAO and signatories.



Facilitation

- Refer to Annex 9, Chapter 8, Section B:
 - Entry without delay of investigators;
 - No other travel docs besides passport;
 - If visas required, should issue on arrival;
 - Authorities informed about Annex 13 type investigations;
 - Arrange transport to site;
 - Temporary entry of aircraft, tools and equipment required; and
 - Movements of part/s for technical examination and testing



Planning the investigation

- Accident investigation management
 - Size of investigation and resources management
- Investigation management system (Doc 9756, Part II)
 - Divided into investigation groups with checklists and flowcharts with events and completion dates.
- Liaison with other authorities
 - First responders, government departments, other authorities with investigative mandates, ATM services, airport authorities, victim identification, notification of next of kin and wreckage moving.



Planning the investigation

- Cooperation with the media
 - Media policy and cooperation with media.
 - Regular briefings and control of releasing information.
- Securing of records, recordings and samples
 - Arrangements for aircraft and operator records to be secured and safe keeping.
 - Special weather reports and fuel samples.
- Removal of disabled aircraft --- Doc 9137, Part 5



Notification

- Notification within a State
- Responsibility of State of Occurrence
- Format and content of notification
- Dispatch to other States
 - Accident investigation authorities address list on ICAO website
- Responsibilities of State receiving the notification
 - Acknowledge and provide information related to actions.



Actions at the accident site

- Initial actions
 - Cooperation with first responders – flow of information via HQ.
 - Wreckage left undisturbed as far as possible.
- Rescue operations
 - Survivors removed and bodies left or properly marked when removed.
- Security
 - Cordon off



Actions at the accident site

- Security
 - Cordon off
 - Dangerous goods
 - Guards made aware of concerns for public and preservation of evidence
- Safety at accident site
 - Urban areas, fire precautions, dangerous cargo, wreckage hazards, biological hazards, psychological stress, helicopter operations



Actions at the accident site

- Safety at accident site – environmental and natural hazards
 - Extreme climates (cold or hot), mountainous, deserts, jungles and swamps, poisonous plants, dangerous animals and insects.
- Wreckage in water
 - Locating, decision to recover, distribution, preservation, underwater wreckage cartography, precautions --- additional guidance in ECAC document in Appendix 2 to Chapter 5.



Actions at the accident site

- Specialist examinations
 - Obtain agreement for tests -- particularly when destructive testing.
 - Sometimes back to manufacturer or laboratory.
 - Choose the correct facility to do the examination.
 - Each component marked and history included when sent.
 - Proper packaging when shipped.
 - Notes and documentation of test results.



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Questions ?

